

A Local Community Perspective

Ada Puzzo, Mayor
Town of Bowers

Three of Our Lessons Learned in the Town of Bowers

Legal Issues

Finding the Money is the Easy Part

Our Idea of Being “Flood Ready”

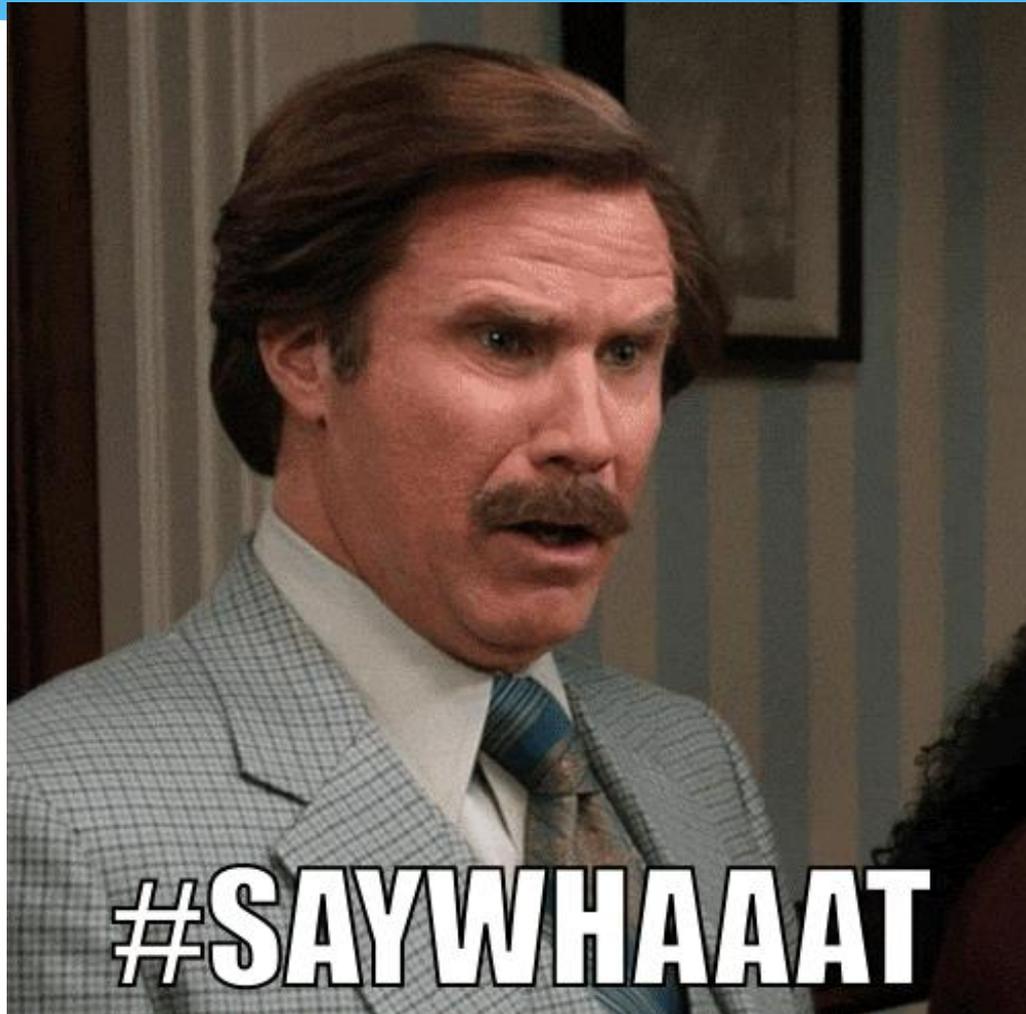
How to Even Get Started

My Introduction to Floodplain Management started in May 2013 with a Legal Issue, a CAV and a Floodplain Ordinance

Timeline – notice, it starts 3 years before I came into the picture (and 2 before I even lived in Bowers)

- * **March 25, 2010**
 - * Community Assistance Visit (CAV). 37 problems found. Mayor was Ron Hunsicker.
- * **Next 12 months, through February 22, 2011**
 - * Kent County & Town work on problems. Update DNREC & FEMA.
- * **21 months later, on November 5, 2012**
 - * Follow-up CAV scheduled. 24 problems left. Elevation documentation was missing.
- * **4 months later, on February 25, 2013**
 - * 2nd follow-up CAV. Mayor Hunsicker asked if a LIDAR Report could be used as elevation documentation. Representatives for FEMA said they would consider it.
- * **2 months later, on April 19, 2013**
 - * FEMA said the LIDAR report could not be used as elevation documentation.
 - * But they added 177 more properties to the list of non-compliant properties based on the data in the LiDAR report.
- * **3 weeks later, on May 9, 2013**
 - * I was sworn in as Vice Mayor at a town meeting to fill in for a recently vacant council position.
- * **2 minutes later, on May 9, 2013...**

- * 2 minutes later, on May 9, 2013...
- * Mayor Ron Hunsicker submitted his resignation letter.



* **An hour later, on May 9, 2013...**

- * I volunteered to be the point of contact for the Town, Mayor Hunsicker retracted his resignation.

* **It took 2 ½ years to document and/or mitigate all of the properties**

* **4 Major Problems at the time of the CAV in 2010 (beyond the obvious LiDAR 177 properties added)**

- * The most recent FEMA-approved version of the Floodplain Ordinance (FPO) in 2010 was from 1993 (when the 2003 FIRM was most current). The FPO:
 - * directly referenced the 9/2/1982 FIRM.
 - * identified Kent County as the Floodplain Administrator.
- * Per 44 CFR 59.24(b)
 - * Failing to mitigate all identified non-compliant properties are (1) Probation and (2) Suspension from the NFIP for the Community – Not Kent County (the administrator of our FPO).
- * There is no clear definition of many of the “required” compliance documents in 44 CFR
 - * That is left to the communities, the counties and the states through FPO’s.
 - * The Town failed to keep the effective FPO current, relied on an MOU with Kent County to administer the FPO and retain required documentation, DNREC approved all of this, and FEMA certified it.
- * Residents were issued CO’s with incorrect or missing elevation documentation

Everyone was oblivious and happy for over 30 years. What changed?

- * SUPER STORM SANDY IN OCTOBER 2012 – Look back at the Timeline, but that story is for another time.

* Knowflow Analysis and Modeling of Issuing a CO

* (enforcing the FPO)

Kent County Building Code

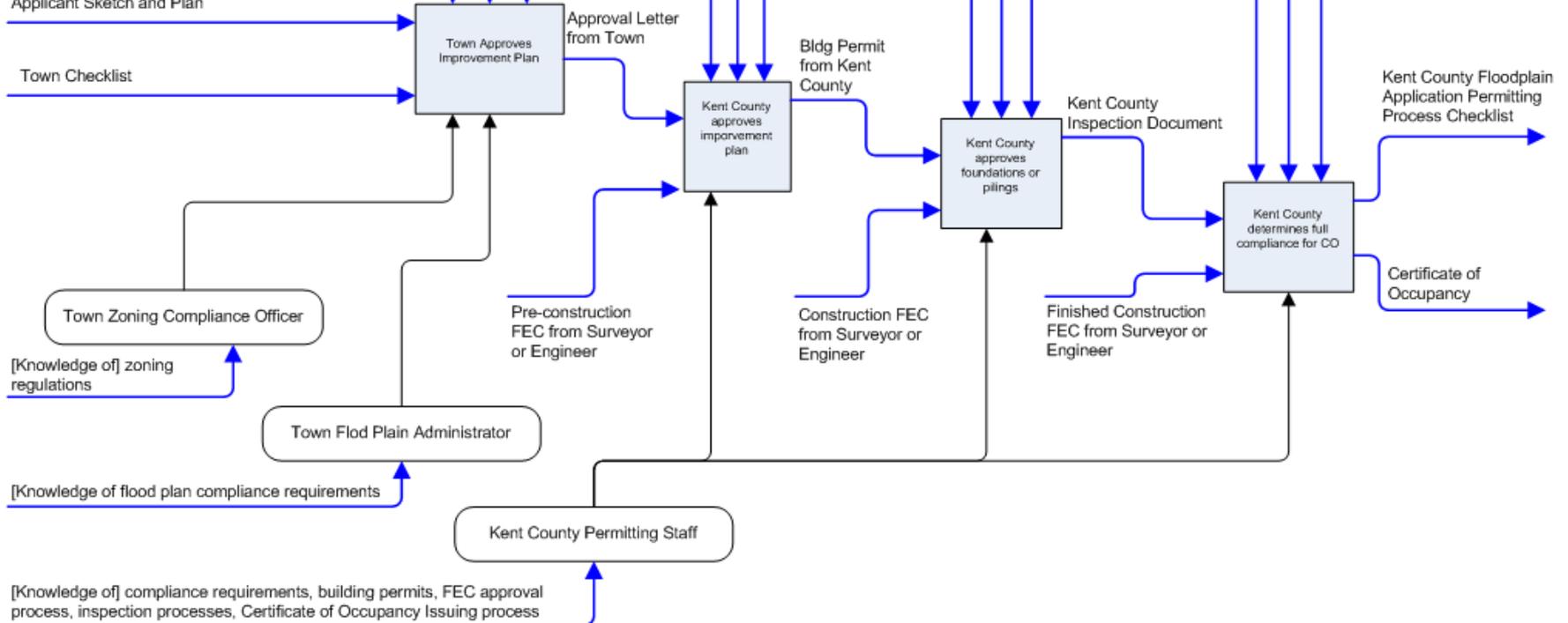
Town FP Ordinance w/amendments
at time of Bldg Permit date

FIRM at time of Bldg Permit Date

Town Zoning Ordinance w/amendments
at time of Bldg Permit date

Applicant Sketch and Plan

Town Checklist



Finding the Money is the Easy Part

Basic Building Blocks

* Comprehensive Development Plan

- * Updated every 10 years and much, much more important than I gave it credit for.
- * The Office of State Planning Coordination manages, monitors, and coordinates these plans. They are extremely helpful and very approachable.
- * Remember this for an example I will share later: Comprehensive Development Plans are **required by and enforceable by law**, per Title 22, § 702 of the Delaware Code. They are reviewed by the County and just about every state agency you can think of before they are recommended to the Governor for certification.

* Hazard Mitigation Plan

- * Updated every 5 years and also much, much more important than I gave it credit for.
- * Kent County manages it for us.
- * Remember this for an example I share later: The approval letter from FEMA says “Participating communities are hereby eligible for **Hazard Mitigation Assistance grant programs**. Funding from these grant programs can be used for qualified mitigation planning and projects that work to reduce disaster losses and protect life and property from future disaster damages”.

Return on Investments

The Bicycle and Pedestrian Improvements Study by the DMPO

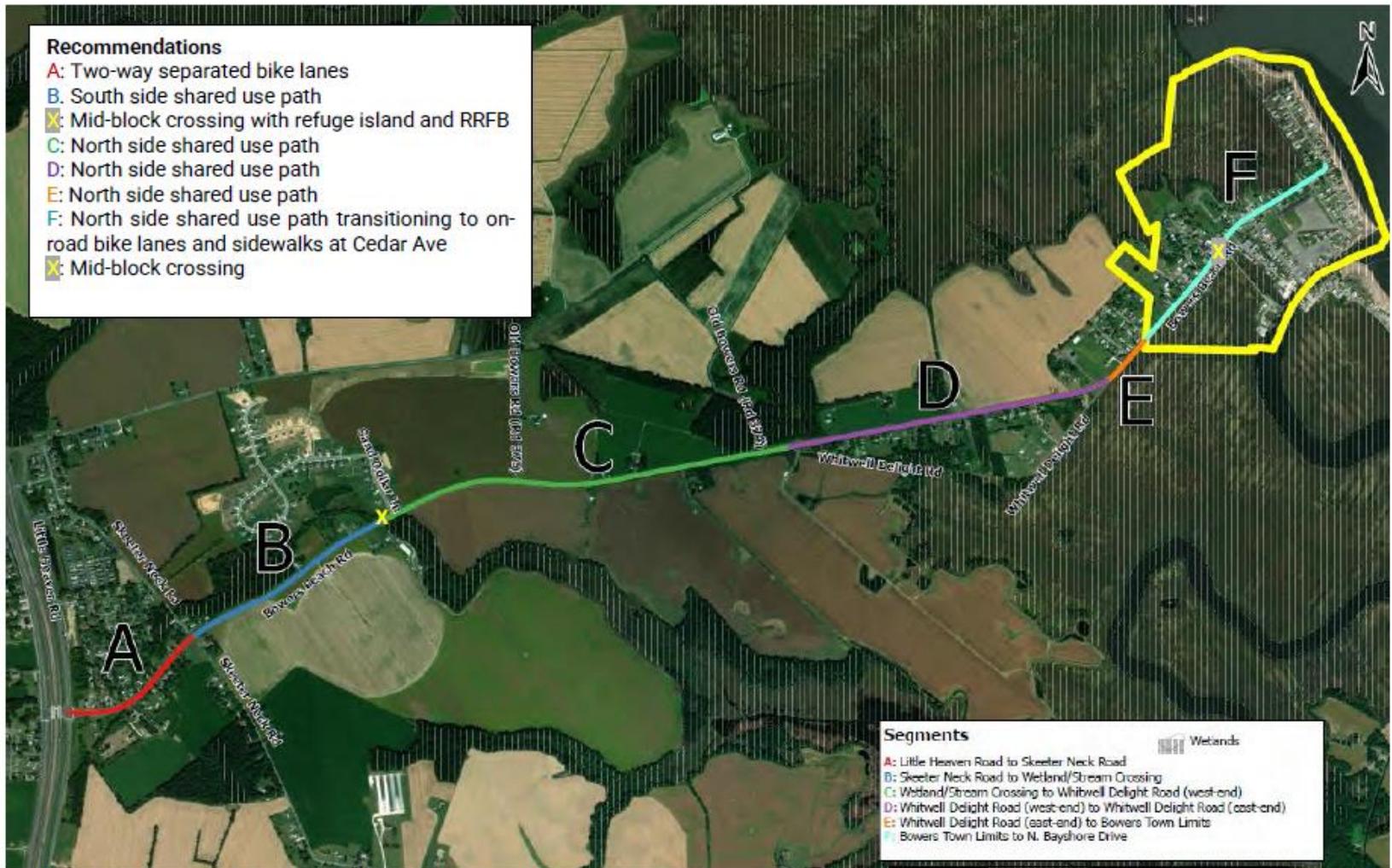


Figure 35. Map of Bowers Beach Road/Main Street Recommendations.

Return on Investments

- * *The Bicycle and Pedestrian Improvements Study by the DMPO*

- * **January 8, 2021** – Not directly related to floodplain management, but a good example of increasing your chances of being selected for studies and funding, which can lead to so much more.
 - * The Town submitted a planning project / study request to the Dover/Kent County Metropolitan Planning Organization (DMPO). We included goals from our Comprehensive Plan in our application. Those goals were identified under “Purpose and Need” in the award letter. There was a local match, and the study cost the Town about \$4K.
- * **July 2021 – June 2022**
 - * The study was conducted during FY22
- * **June 2022** – Before the DMPO report was finalized
 - * The Delaware Bayshore Byway selected Bowers to be included in a Federal Highway Administration (FHWA) grant application to enhance visitor amenities.
- * **April 28, 2023**
 - * Delaware Bayshore Byway was awarded the grant. Total project cost = \$1.4M; Bowers to receive \$475K (**Pretty good ROI**)

I have a few copies of the printed report for anyone interested in it. The full 86-page document is available on the MPO website: <https://doverkentmpo.delaware.gov/files/2022/09/Bowers-Bike-Ped-Report-Final-09.2022.pdf>

Our Idea of Being “Flood Ready”

Follow the Netherlands Approach
Live With Water and Give it Somewhere to Go
Engineer With Nature



“Imagine if Bowers Beach became a model coastal community for adapting and living with changing conditions along the DE Bayshore. What would that look like?”

Follow the Netherlands Approach

- * The Dutch have been experts in flood preparedness for centuries. They focus on disaster prevention by living with water and giving it somewhere to go.

The Conceptual Resilience Plan by the Coastal Resiliency Design Studio

- * February 18, 2022
 - * I messaged Ed Lewandowski, out of the blue, about living shorelines, hoping he could “hook me up with someone at the UD that could help”. Ed “hooked me up” with Dr. Jules Bruck and the Coastal Resiliency Design Studio
- * May 31, 2022 – August 2022
 - * The study was conducted during the Summer of 2022. Focused on the Netherlands Approach and these 3 areas:



Marshlands
Restoration



Beach and Murderkill
River



Town Center
Revitalization

* Engineer With Nature

* One month later, on July 2022

After seeing just the draft report, a lead Project Manager from the Operations Division of the USACE Philadelphia District came to Bowers to find out more about the CRDS and discuss the recommendations in the draft report. She was looking for a Delaware location for a project she was currently managing in New Jersey, “Advancing Dredging and Beneficial Use Practices to Support Coastal System Resilience”.



Five months later, on December 2022

Ed and Matt Harris (IPA) attend a RASCL event and pick up on a little “between the lines” info that there are federal funds not being tapped into. They pull together a team to submit a FEMA, Hazard Mitigation Grant Program (HMGP) grant application for a Flood Risk Reduction Feasibility Study and Preliminary Engineering Report based on the recommendations in the CRDS study. \$200K

Four months later, in April 2023

The CRDS is awarded Excellence in Sustainability for the Student category for the study they did in Bowers:

Adapting and Living with Changing Coastal Conditions.

Students: DJ Bromley, Lexi Dart, Delaney Pilotte, Chris Fettke von Koeckritz, Andrew Gainey, James Hill, Garrett Knobl, Chris McCarron, Leigh Muldrow, Claudia Schreier, and Michael Tobin

Same month, in April 2023

The congressional delegates allocated \$3M to the USACE for the Bowers Beach beneficial use of dredging material.

All possible because of the CRDS study.

I have a printed copy with me if anyone is interested in it looking through it.

How to Even Get Started

Get to Know the *Movers and Shakers*

You're doing that right now. There's a bunch of them in this room. Talk to them.

Always say "Yes" to movers and shakers.



Thank you for listening

* Questions?

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